L 46992-66

ACC NR: AP6022869

through the coating. In a moist atmosphere containing HCl vapor, which easily penetrates through the film and activates the anodic process, the protective properties of polymer films are completely determined by their mosture permeability. In this case, the chemical nature of the polymer material and its structure are the basic factors determining the protective properties of the films. A quantitative description of the protective effect of polymer films is given. Depending upon the nature of the film, moisture content of the atmosphere, and content of HCl, the protective effect changes by 2 to 3 orders of magnitude. Orig. art. has: 6 figures and 3 formulas.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 014/ OTH REF: 003

Card 2/2

L 04964-67 EWT(m)/EWP(j)/EWP(t)/ETI LJP(c) JD/WB/RM

ACC NR: AP6006723 SOURCE CODE: UR/0303/66/000/001/0053/0055

AUTHOR: Sokolova, Ye. M.; Naumova, S. F.; Mikhaylovskiy, Yu. N.; Zubov, P. I.

ORG: none

TITLE: New rapid method of evaluating the protective properties of polymer coatings on metals in corrosive media

SOURCE: Lakokrasochnyye materialy i ikh primeneniye, no. 1, 1966, 53-55

TOPIC TAGS: protective coating, corrosion

ABSTRACT: A rapid method is proposed for evaluating the protective properties of coatings on metals in any corrosive media (i. e., liquid electrolytes, nonelectrolytes or gaseous media). It involves the recording of the change in the resistance of the metal base during the testing. PE-500 polyethylene, PVKh-990 polyvinyl chloride and Teflon were thus tested (in the form of films 90, 190 and 60 μ thick respectively) in HCl and HNO_3 vapors. The polymer films were bonded with polyisobutylene adhesive to magnesium films evaporated onto glass (magnesium was chosen as the metal base because of its high corrosion activity). In the HCl atmosphere, magnesium begins to dissolve immediately after the sample comes in contact with the HCl vapor. The protective properties of the polymer films studied increase in the series polyvinyl chloride - Teflon - polyethylene for both HCl and HNO_3. The results lead the authors to recommend this method as a means of evaluating the protective properties of paint and

Card 1/2 UDC: 667.61

L 04964-67

ACC NR: AP6006723

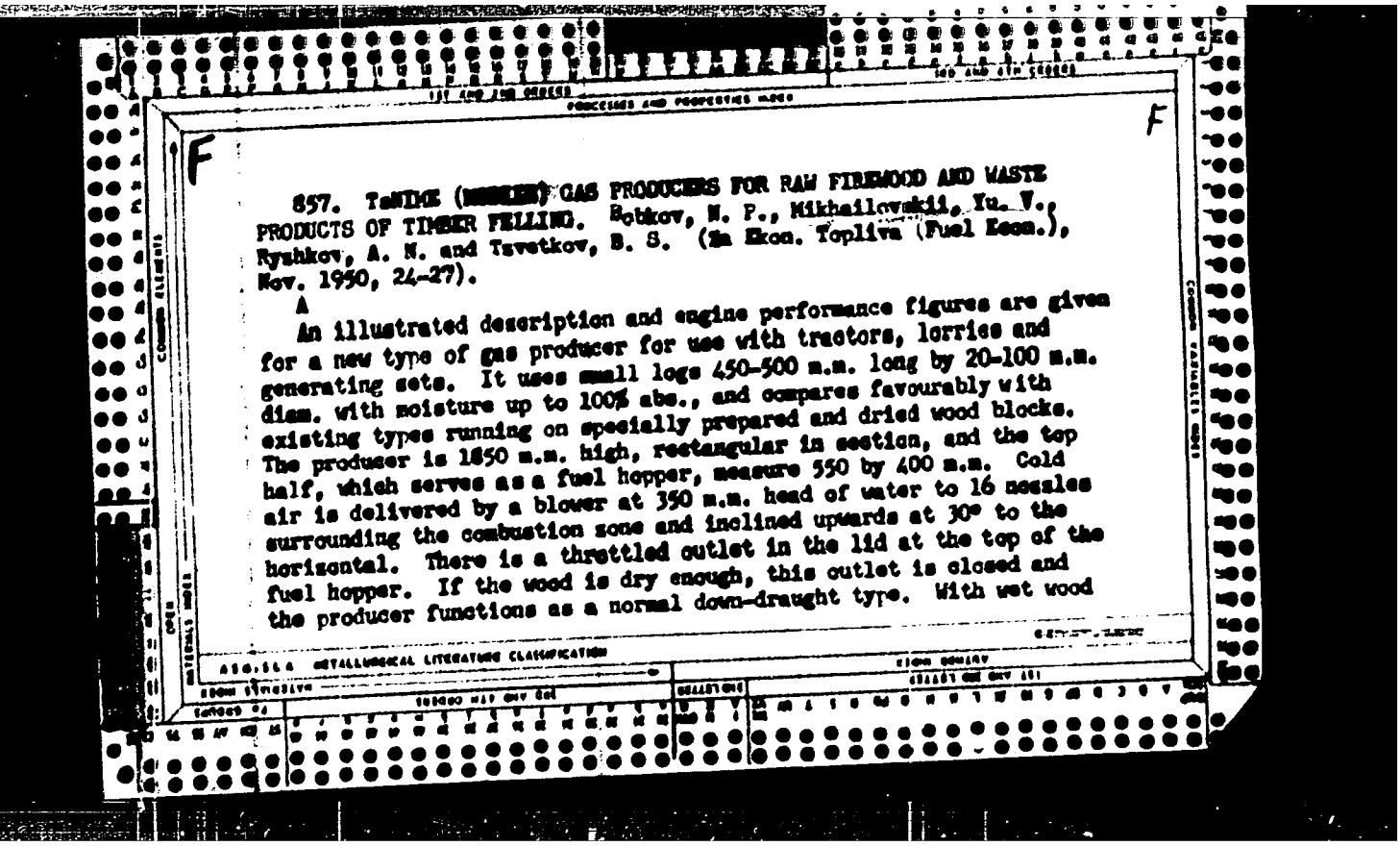
varnish and insulation coatings on metals. Orig. art. has: 4 figures and 1 formula.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 008/ OTH REF: 004

Card 2/2

MIKHAYLOVSKIY, Yu.N.; NIKITENKO, Ye.A.; LEONOV, V.V.; TOMASHOV, N.D.

Electrochemical protection of gas pipelines from corrosion caused by stray currents. Gaz. prom. 7 no.9:37-42 '62. (MIRA 17:8)

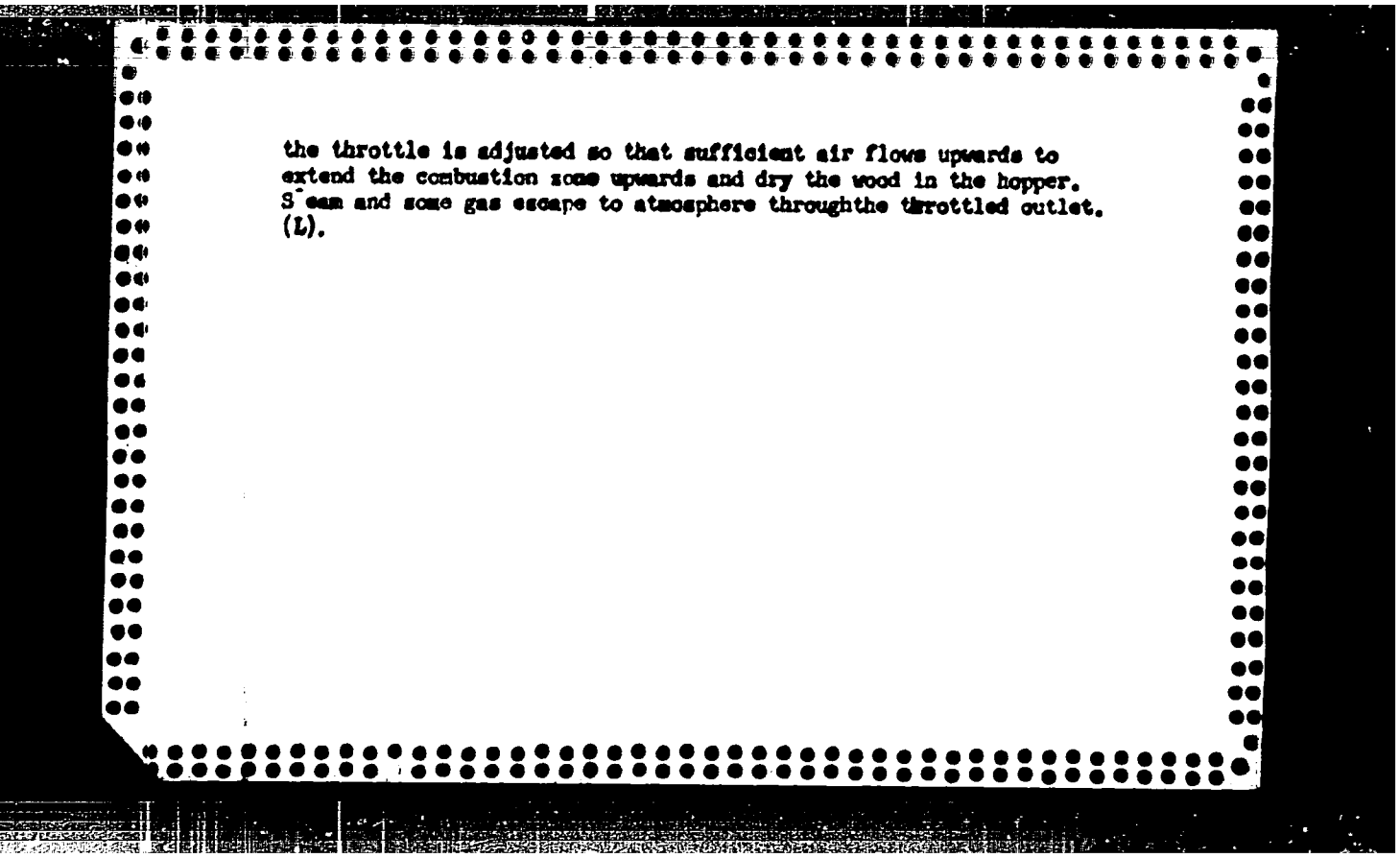


F

857. TsNIDI ([redacted]) GAS PRODUCERS FOR RAW FIREWOOD AND WASTE PRODUCTS OF TIMBER FELLING. Botkov, N. P., Mikhailovskii, Yu. V., Ryabkov, A. N. and Tsvetkov, B. S. (Za Ekon. Topliva (Fuel Econ.), Nov. 1950, 24-27).

A

An illustrated description and engine performance figures are given for a new type of gas producer for use with tractors, lorries and generating sets. It uses small logs 450-500 m.m. long by 20-100 m.m. diam. with moisture up to 100% abs., and compares favourably with existing types running on specially prepared and dried wood blocks. The producer is 1850 m.m. high, rectangular in section, and the top half, which serves as a fuel hopper, measure 550 by 400 m.m. Cold air is delivered by a blower at 350 m.m. head of water to 16 nozzles surrounding the combustion zone and inclined upwards at 30° to the horizontal. There is a throttled outlet in the lid at the top of the fuel hopper. If the wood is dry enough, this outlet is closed and the producer functions as a normal down-draught type. With wet wood



the throttle is adjusted so that sufficient air flows upwards to extend the combustion zone upwards and dry the wood in the hopper. Steam and some gas escape to atmosphere throughthe throttled outlet. (L).

MIKHAYLOVSKIY, Yu.V.

KIRYUKHIN, Anatoliy Mikhaylovich; GORBACHEVSKIY, Viktor Andreyevich; LESHKEVICH, Andrey Ivanovich; MIKHAYLOVSKIY, Yuriy Vasyolodovich; GATSKEVICH, A.I., redaktor; VOROB'YEVA, N.N., redaktor; KARASIK, N.P., tekhnicheskiy redaktor

[Operation of hauling equipment] Ekspluatatsiia tiagovykh mashin. Moskva, Goslesbumizdat, 1954. 391 p. (MLRA 8:4)
(Lumbering--Equipment and supplies)

KASHECHKIN, N.N.; PEREL'MUTER, N.M.; VINOGOROV, G.K.; YERMOLAYEV, V.M.; ITINA, L.S.; MIKHAYLOVSKIY, Yu.V.; BOLDOV, M.Ya.; TSEYTLIN, A.M.; ZHURAVLEV, B.A., red.izd-va; BACHURINA, A.M., tekhn.red.

[Handbook for electrical engineers in the lumber industry] Spravochnik elektromekhanika lespromkhoza. Moskva, Goslesbumizdat, 1958. 320 p. (MIRA 12:4)

1. Nauchnyye rabotniki Tsentral'nogo nauchno-issledovatel'skogo instituta mekhanizatsii i energetiki lesnoy promyshlennosti (for all except Zhuravlev, Bachurina).
(Electric engineering--Handbooks, manuals, etc.)
(Lumbering--Machinery)

ARTAMONOV, Mikhail Dmitriyevich; MIKHAYLOVSKIY, Yuriy Vsevolodovich; PUSHKAREV, B.A., retsenzent; MOROZOV, K.P., retsenzent; ZAYCHIK, G.I., red.; GORYUNOVA, L.K., red.izd-va; BACHURINA, A.M., tekhn.red.

[Traction machinery in the logging industry] Tiagovye mashiny na lesozagotovkakh. Moskva, Goslesbumizdat, 1959. 326 p. (MIRA 13:5)

(Tractors)

PETROVSKAYA, A. Ya.; MIKHAYLOVSKIY, Yu.V.

Polarimetric method of determining the amount of moisture. Inzh.-fiz.zhur., no.6:99-100 Je '60. (MIRA 13:7)
(Moisture) (Polariscope)

GORBACHEVSKIY, Viktor Andreyevich; LESHKEVICH, Andrey Ivanovich; MIKHAYLOVSKIY, Yuriy Vsevolodovich; SHESTAKOV, Boris Aleksandrovich; MEDNIKOV, I.N., retsenzent; MOROZOV, K.P., retsenzent; KHASMAN, P.Ya., otv. red.; PLESKO, Ye.P., red.; GRECHISHCHEVA, Z.I., tekhn. red.

[Fundamentals of lumbering and the operation of machines and mechanisms] Osnovy lesozagotovok i ekspluatatsiia mashin i mekhanizmov. V.A.Gorbachevskii i dr. Moskva, Goslesbumizdat, 1961. 319 p. (MIRA 15:2)
(Lumbering--Machinery)

MIKHAYLOVSKIY, Yu.V.

Determining the line of the center of gravity in static balancing. Mashinostroitel' no.1:46 Ja '61. (MIRA 14:3)
(Balancing of machinery)

GRATSIANSKIY, Vladimir Nikolayevich; MIKHAYLOVSKIY, Yuriy Vsevolodovich; Prinimal uchastiye ROMANENKO, P.N.; MIKHAYLOVA, L.G., red. izd-va; GRECHISHCHEVA, V.I., tekhn. red.

[Fundamentals of heat engineering and power plants] Osnovy teplotekhniki i silovye ustanovki. Izd., perer. i dop. Moskva, Goslesbumizdat, 1962. 434 p. (MIRA 16:7)
(Heat engineering) (Power plants)

PROKHOROV, Vladimir Borisovich; MIKHAYLOVSKIY, Yu.V., kand. tekhn. nauk, retsenzent; SOLOV'YEV, N.S., otv. red.

[Operation of machines in the lumbering industry] Ekspluatatsiia mashin v lesozagotovitel'noi promyshlennosti. Moskva, Goslesbumizdat, 1963. 382 p. (MIRA 17:6)

ARTAMONOV, Mikhail Dmitriyevich; MIKHAYLOVSKIY, Yuriy Vsevolodovich; GATSKEVICH, V.A., red.

[The locomobile and diesel engine in lumbering] Lokomobil' i dizel' v lesnoi promyshlennosti. Moskva, Izd-vo "Lesnaia promyshlennost'," 1964. 263 p. (MIRA 17:7)

L 22288-66 EWT(m)/T WW/JW/WE

ACC NR: AP6007310 (A) UR/0096/66/000/003/0069/0070

AUTHOR: Mikhaylovskiy, Yu.V. (Engineer)

ORG: Penzensk Artillery Engineering School (Penzenskoye artilleriyskoye inzhenernoye uchilishche)

TITLE: Method for the combustion of a gaseous fuel

SOURCE: Teploenergetika, no.3, 1966, 69-70

TOPIC TAGS: combustion chamber test, gas fuel, natural gas, combustion

ABSTRACT: The experiments were carried out using a vortical burner and an experimental combustion chamber. The burner was a steel combustion chamber screwed onto a conventional laboratory Bunsen burner. Each combustion chamber had three tangential inlets through which the working substance (compressed air, sometimes nitrogen) was introduced. By this method, a whirling motion of the axial flow of the gaseous fuel was established. One of the burners was fitted witha quartz tube to increase the volume of the combustion chamber and to make possible visual observation of the combustion process with axial feed of the gas, whose turbulence was increased by tangential streams of compressed air. The article shows a scheme of the experimental apparatus. The experimental results show that with flow into the chamber of cold interacting axial

Card 1/2 UDC: 541.126:662.76.001.5

L 22288-66

ACC NR: AP6007310 O

and tangential flows, the distribution of the statistical pressures and velocities is analogous to their distribution in cyclonic chambers. Measurement of the temperature of the combustion products made it possible to establish the special character of the temperature distribution. The temperature distribution (shown in a figure) over a transverse cross section of the chamber has an M-shaped character, with a maximum value of the temperature at a distance of 0.5R, and a minimum value at the wall of the chamber. Orig. art. has: 6 figures.

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 001

Card 2/2 mst

ACC NR: AP7003657 SOURCE CODE: UR/0079/66/036/008/1442/1444

AUTHOR: Shokol, V. A.; Mikhaylyuchenko, N. K.; Derkach, G. I.

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

TITLE: Reaction of compounds with trivalent phosphorus with n-chloramides of acids. II. Reaction of phosphites with n-chloro-n-alkylurethans

SOURCE: Zhurnal obshchey khimii, v. 36, no. 8, 1966, 1442-1444

TOPIC TAGS: organic phosphorus compound, IR spectrum, ester, organic synthetic process

ABSTRACT: N-chloro-N-alkylurethans react with trialkyl phosphites to form dialkyl esters of N-alkylurethanephosphoric acids. The reaction is analogous to that of N-chloro-N-alkylarylsulfamides with trialkyl phosphites, studied earlier by the authors. The dialkyl esters of N-alkylurethanephosphoric acids are colorless free-flowing liquids, readily soluble in water and most organic solvents. Eleven diesters were synthesized (ten for the first time) and characterized. Their infrared spectra were studied. Orig. art. has: 1 table.

[JPRS: 38,970]

SUB CODE: 07 / SUBM DATE: 10Jul65 / ORIG REF: 004 / OTH REF: 002

Card 1/1 jd UDC: 547.495.1
0426 0280

ACC NR: AR6035435 SOURCE CODE: UR/0276/66/000/008/B098/B098

AUTHOR: Mikhaylyuk, E. A.

TITLE: Thread tapping in titanium alloys with superposition of ultrasonic oscillations

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya, Abs. 8B620

REF SOURCE: Tr. Kafedry proiz-va letatel'n. apparatov. Kyubyshevsk. aviats. in-t, vyp. 20, ch. 2, 1965, 227-233

TOPIC TAGS: titanium alloy, thread cutting, ultrasonic machining, ultrasonic vibration/ VT-14 titanium alloy

ABSTRACT: As a result of investigations it is established that when ultrasonic oscillations are applied to the tap, the total torque is greatly decreased, especially in the case of longitudinal oscillations. When tapping a thread in heat-treated titanium alloy VT-14, the bottoms of the threads become welded together, and the worked material sticks to the rear surface of the tooth of the tap, thus deteriorating the accuracy and the quality of the tap. None of this occurs when the thread is cut with ultrasound, especially when the tap is made to oscillate longitudinally. 4 illustrations, 1 table. Bibliography, 3 titles. L. Tikhonova [Translation of abstract]

SUB CODE: 13, 11

Card 1/1 UDC: 621.99

L 10287-66 EWT(d)/EWT(l)/EPF(n)-2/EWP(c) IJP(c) WW
ACC NR: AF5025316 SOURCE CODE: UR/0126/65/020/003/0339/0344

AUTHOR: Mikhaylyuk, I. P.

ORG: Chernovitskiy State University (Chernovitskiy gosudarstvennyy universitet)

TITLE: Effect of temperature on oscillating spectra of crystals

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 3, 1965, 339-344

TOPIC TAGS: thermal effect, aluminum, silver, crystal lattice structure, atomic spectrum

ABSTRACT: An experimental study of the effect of temperature on the character of dispersion curves of aluminum made by K. Larson, W. Dahlberg, and S. Holmryd (Arkiv fys., 1960, 17, 369) showed that in the temperature range of 300 - 900 K the values of all spectrum frequencies decreased noticeably with increased temperature. The effect of temperature on the displacement of frequencies of the oscillating spectra was evaluated in the present work for aluminum and silver lattices by the superposition of the Debye and Einstein spectra. The characteristic frequencies of the spectra decreased linearly with increased

Card 1/2 UDC: 548.4

L 10287-66

ACC NR: AP5025316

9

temperature in the 200 - 900 K range. The effect of temperature on the displacement of oscillating spectra towards lower temperatures was attributed to the anharmonicity of thermal oscillations of the lattices. The mean square displacements of atoms in the lattices were calculated and compared with the experimental data in this temperature range. The effect of temperature on the thermal displacement of atoms evaluated from frequency changes with changing temperature agreed satisfactorily with experimental data. A certain amount of qualitative disagreement for aluminum was caused by the high degree of anharmonicity of its lattice. The study showed that temperature does not effect the radical changes in the form of the spectra. The anharmonic effects result only in monotonic displacement of spectra towards low frequencies. The author thanks V. P. Mikhal'chenko and N. G. Bakulich for assistance with this study. Orig. art. has: 2 figures, 7 formulas and 2 tables.

SUB CODE: 20,11 / SUBM DATE: 16Sep64/ NR REF SOV: 008/ OTHER: 006

Card 2/2

AUTHORS: Marchuk, G.I., Mikhaylus, F.F. SOV/ 89-4-6-3/30

TITLE: The Resonance Absorption of Neutrons in an Infinite Uniform Medium (Rezonansnoye pogloshcheniye neytronov v beskonechnoy odnorodnoy srede)

PERIODICAL: Atomnaya energiya, 1958, Vol 4, Nr 6, pp 520-530 (USSR)

ABSTRACT: Moderation of neutrons takes place in an infinite uniform medium which has strong resonance absorption and in which neutron sources are uniformly distributed. Solution of the adjoint equation is an expression for the probability that a neutron with the energy E is not subjected to resonant capture during the process of moderation up to a certain asymptotic energy.
The scattering function of the neutrons in the described medium is first set up, after which the adjoint equation for neutron moderation is derived.
A method for the numerical solution of the moderation equation and the adjoint equation is then given.
In an example the method developed is applied to the first resonance level of U^{238} (E_0 = 6.7 eV) both for pure uranium and for uranium oxide.

Card 1/3

The Resonance Absorption of Neutrons in an Infinite Uniform Medium

SOV/ 89-4-6-3/30

Solution of the fundamental and adjoint problem makes it possible to apply the perturbation functional for the influence exercised by Doppler broadening upon the resonance integral. The following values of the resonance integral for the first resonance level of U^{238} are given:

$J = - \ln q (u_{as})$

	Pure U^{238}	UO_2
According to the exact solution of the fundamental equation	52.59	3.088
According to Fermi's approximation	818	20.04
According to Wigner's approximation	31.3	3.140
According to the Greiling-Gertzel approximation	39.2	5.188
According to the solution of the adjoint equation	52.66	3.084

Card 2/3

The Resonance Absorption of Neutrons in an Infinite Uniform Medium 307/ 89-4-6-3/30

$J = -\ln q\ (u_{as})$

	Pure U^{238}	UO_2
In consideration of Doppler broadening	52.59 (T=0°K)	3.09
	51.12 (T=419°K)	3.28
	50.93 (T=655°K)	3.31
Calculated according to the perturbation theory	51.04 (T=419°K)	3.23
	50.89 (T=655°K)	3.26

There are 3 figures, 2 tables and 5 references, 3 of which are Soviet.

SUBMITTED: December 20, 1957

1. Neutrons--Absorption 2. Neutron absorbers--Theory 3. Perturbation theory--Applications 4. Mathematics--Applications

Card 3/3

MIKHAYLUS, F.F.

PHASE I BOOK EXPLOITATION SOV/4454

Moscow. Universitet. Kafedra atomnogo yadra

Nekotoryye matematicheskiye zadachi neytronnoy fiziki (Some Mathematical Problems in Neutron Physics) [Moscow] Izd-vo Mosk. univ-ta, 1960. 219 p. Errata slip inserted. 5,000 copies printed.

Ed.: N.G. Zaytseva; Tech. Ed.: K.S. Chistyakova.

PURPOSE: This book is intended for nuclear physicists interested in the mathematical theory of neutron physics.

COVERAGE: The collection of 9 articles was written during the period 1951 - 1955 by students of the Nuclear Physics Department of Moscow State University. The articles deal with the theory of kinetic equations of neutron physics. They should not be regarded as theses but as students' theoretical works which may contain new generalizations and examples of computations, some of which may require further proof. The articles are mathematical in nature and, in general, deal with the problem of setting up and working out approximation methods of solving kinetic equations. A critical review of the articles is given in the foreword by Ye. Kuznetsov, who supervised the work and who, with [illegible] of T.A. Germogenova and N.V. Maslennikov, edited the collection. [illegible] figures, and references accompany the articles.

[illegible], A.I. Distribution of Neutrons According to Energies in the [illegible] Anisotropic Scattering Law [illegible]

Kotlov, Y.I. Application of the Variational Method to Determine the Parameters of a Critical Spherical Reactor [illegible]

Mikhaylus, F.F. Use of the Variational Method to Calculate the Critical Conditions of a Cylindrical Reactor [illegible]

Nikolayshvili, Sh. S. Penetration of Gamma Rays Through a Flat Layer [illegible]

Chuyanov, V.A. The Convergence of an Approximate Solution of a Kinetic Equation (The Gauss Quadrature Integration Method) 199

AVAILABLE: Library of Congress (QC721.M67)

4468

S/869/62/000/000/008/012
B102/B186

530 21.1000

AUTHOR: Mikhaylus, F. F.

TITLE: Calculating neutron resonance absorption in homogeneous media

SOURCE: Teoriya i metody rascheta yadernykh reaktorov; sbornik statey. Ed. by G. I. Marchuk. Moscow, Gosatomizdat, 1962, 160 - 178

TEXT: A direct numerical method for solving the slowing-down equation of neutrons is proposed and set out. The effects taken into account are those that necessitate no assumptions as to the position of and distance between levels where resonance capture occurs, e.g. interference of potential scattering and resonance scattering, Doppler broadening of the levels, etc. The slowing-down equation is of the form

$$\psi(u) = \sum_{\nu=1}^{m} \frac{1}{1-\alpha_\nu} \int_{u-r_\nu}^{u} A^{(\nu)}(u') e^{-(u-u')} \psi(u')du', \quad u_N > u > 0; \quad \psi(u) = \frac{1}{\xi}, \quad u \leqslant 0$$

$$A^{(\nu)}(u) = \frac{\Sigma_s^{(\nu)}(u)}{\Sigma(u)}, \qquad \alpha_\nu = \left(\frac{M_\nu - 1}{M_\nu + 1}\right)^2 \qquad (2)$$

Card 1/2

and describes the neutron collision density in an infinite homogeneous medium containing uniformly distributed sources. A numerical method for solving (2) is then worked out, which enables the collision density and the neutron absorption probability to be calculated for a given lethargy interval. The method is based on applying the Wigner approximation, i.e. the kernel of (2) is replaced by $\frac{1}{\xi}\exp(-(u-u')/\xi$ and so $\psi_0(u) = \frac{1}{\xi}\exp\left[\int_0^u B(u')du'\right]$. $\psi(u)$ is equated to $\eta(u)\psi_0(u)$, and the equation solved to find $\eta(u)$. This is demonstrated step by step. The results are used to calculate several parameters for two-component mixtures of U^{238} and Be^9, C^{12} or O^{16}. There are 4 figures and 10 tables.

MIKHAYLUS, F. F.; ZOLOTUKHIN, V. G.; YERMAKOV, S. M.

"Solution methods of transport equation in inhomogeneous and finite media."

report submitted for 3rd Intl Conf, Peaceful Uses of Atomic Energy, Geneva, 31 Aug-9 Sep 64.

L 2345-66 EWT(m)/EPF(n)-2/EWA(h) UR/3158/65/000/003/0001/0015
ACCESSION NR: AT5022112 44,55 44,55 44,55 64 B+1 44,55

AUTHORS: Belanova, T. S.; Van'kov, A. A.; Mikhaylus, F. F.; Stavisskiy, Yu. Ya.

TITLE: Absolute determination of absorption cross section for 24 Kev neutrons 44,55

SOURCE: Obninsk. Fiziko-energeticheskiy institut. /Doklady/, no. 3, 1965. Absolyutnyye izmereniya secheniy pogloshcheniya neytronov s energiyey 24 kev, 1-15

TOPIC TAGS: neutron absorber, neutron cross section, neutron absorption, neutron capture, neutron counter, neutron detector, Monte Carlo method

ABSTRACT: The influence of a particular experimental method used in the determination of neutron absorption cross section on the magnitude of the cross section was studied, and neutron absorption cross sections for 18 different metals for 24 Kev electrons were determined. The data obtained were compared with those reported in the literature. The neutron source was (Sb - Be). The cross sections were determined by the spherical geometry transmission method. The measurements were carried out using two different counting arrangements, viz: an all-wave long counter and a water tank equipped with a system of dividing chambers. An experimental procedure similar to that of H. W. Schmitt and C. W. Cook (Nucl. Phys. 20, 202, 1960) was used. The effect of resonance blocking on the cross section magnitude was also investigated. All experimental results were treated according to the Monte Carlo

Card 1/3

L 2345-66
ACCESSION NR: AT5022112 2/

method and are presented in Table 1 on the Enclosure. It is concluded that, with the exception of lead, the data obtained are in good agreement with those of Schmitt and Cook (see reference above). The authors thank A. I. Lavrinskiy and O. D. Kazachkovskiy for their interest in this work and N. A. Artemov, V. V. Piskunov, Yu. M. Mikhin, and L. Ye. Fedorov for the help received in setting up the apparatus. Orig. art. has: 2 tables and 4 equations.

ASSOCIATION: Fiziko-energeticheskiy institut, Obninsk (Physics and Power Institute, Obninsk)

SUBMITTED: 00 ENCL: 01 SUB CODE: NP

NO REF SOV: 005 OTHER: 008

Card 2/3

L 2345-66
ACCESSION NR: AP5022112

ENCLOSURE: 01
0

Table 1
Experimental results

NNN	Z	G, n. barn
1.	Ce	10 ± 4
2.	Cd	88 ± 8
3.	Zn	84 ± 7
4.	Zr	10 ± 8
5.	Nb	270 ± 10
6.	Mo	102 ± 12
7.	Ag	880 ± 80
8.	Cd	204 ± 20
9.	In	770 ± 80
10.	Sn	120 ± 9
11.	Sb	880 ± 770
12.	W	200 ± 20
13.	Au	670 ± 60
14.	Hg	200 ± 20
15.	Pb	48 ± 7
16.	Bi	0 ± 4
17.	Th	810 ± 80
18.	U[illegible]	412 ± 10

Card 3/3

L 6448-66 EWT(m)/EPF(n)-2/EWA(h) DM

ACCESSION NR: AP5019802 UR/0089/65/019/001/0003/0007
539.17.02.:539.172.4 27
21

AUTHOR: Belanova, T. S.; Ban'kov, A. A.; Mikhaylus, F. F.; Stavisskiy, Yu. Ya. B

TITLE: Absolute measurements of the absorption cross sections of 24-kev neutrons 17

SOURCE: Atomnaya energiya, v. 19, no. 1, 1965, 3-7

TOPIC TAGS: neutron cross section, neutron absorption, measuring apparatus

ABSTRACT: Inasmuch as the published cross section values were obtained by methods sensitive to the softening of the incident neutrons, the authors made their measurements by the transmission method and with a spherical geometry, using an all-wave detector whose efficiency does not depend on the neutron energy in the investigated region. An Sb-Be neutron source, with outside diameter 30 mm and with beryllium cladding 2, 4, and 6 mm, was used. The source intensity was 10^8 neut/sec. The all-wave neutron detector comprised a long counter and an independent water tank with a system of integrating fission chambers. The measurement setup is shown in Fig. 1 of the Enclosure. The measured samples were made in the form of spherical layers with the neutron source placed inside. Some elements were in pure form, and others included a lead-bismuth alloy as a scatterer to improve the accuracy. The errors are analyzed and the data reduction method is discussed in detail. The

Card 1/4

L 6448-66

ACCESSION NR: AP5019802

6

obtained cross sections are listed in Table 1 of the Enclosure. The results agree with the data of Schmitt and Cook (Nucl. Phys. v. 20, 202, 1960) if their correction for resonance blocking is disregarded. Some discrepancies with results by others are mentioned. "The authors thank A. A. Ioffe for continuous interest in the work, and N. A. Artemov, V. V. Piskunova, Yu. M. Nikitin, and L. Ye. Fedorov for help with the adjustment of the apparatus, the measurements, and the data reduction." Orig. art. has: 3 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 09Nov64 ENCL: 02 SUB CODE: NP

NR REF SOV: 005 OTHER: 008

Card 2/4

L 6448-66

ACCESSION NR: AP5019802

ENCLOSURE: 01

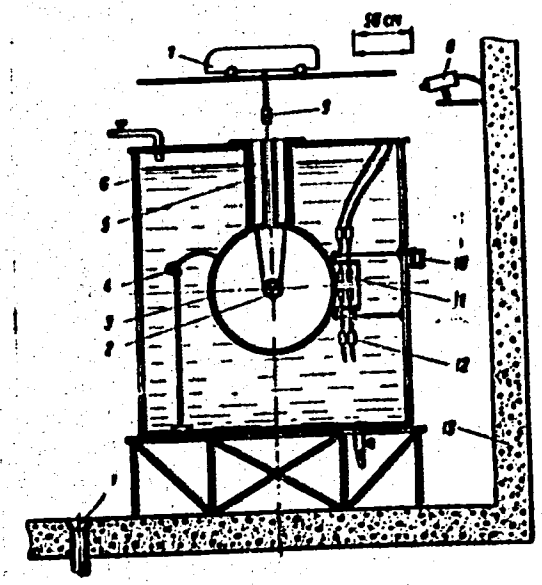


Fig. 1. Diagram of measurement setup (water tank).

1 - Well (source storage), 2 - sample, 3 - aluminum sphere, 4 - integrating fission chamber, 5 - neck of sphere with water "stopper," 6 - tank body, 7 - transporter for source, 8 - television camera, 9 - magnetic clamp for extraction of source, 10 - drive of moving system of flat fission chambers, 11 - flat fission chamber, 12 - cathode follower jacket, 13 - concrete shield.

Card 3/4

L 6448-66

ACCESSION NR: AP5019802

ENCLOSURE: 02

Table 1. Averaged 24-kev neutron absorption cross sections

Element	σ_a, mb	Element	σ_a, mb
Cr	10±4	Sn	128±9
Cu	59±8	Sb	580±73
Zn	64±7	W	300±25
Zr	19±5	Au	570±30
Nb	270±15	Hg	233±30
Mo	192±12	Pb	43±7
Ag	980±80	Bi	8±3
Cd	384±20	Th	615±25
In	776±80	U[illegible]	412±18

Card 1/1

MEDVEDEV, I.[illegible]; SAVCHENKO, P.A., inzh.; MIKHAYLUS', Yu.I., inzh.

Mechanization of winding operations using enamel coated wires.
Elektrotekhnika 36 no.10:35-37 O '65.
(MIRA 18:10)

L 06997-67 EWT(m)
ACC NR: AP6021530 SOURCE CODE: UR/0089/66/020/006/0518/0520

AUTHOR: Zvonarev, A. V.; Koleganov, Yu. F.; Mikhaylus, F. F.; Nikolayev, M. N.

ORG: none

TITLE: Measurement of neutron spectra in the energy region up to 3 kev by resonant indicators

SOURCE: Atomnaya energiya, v. 20, no. 6, 1966, 518-520

TOPIC TAGS: neutron spectroscopy, reactor neutron flux, fast neutron, neutron capture, BR-1 reactor

ABSTRACT: The authors propose a modification of the method of V. I. Golubev et al. (Atomnaya energiya v. 11, 1961) for measuring neutron spectra at different points inside a nuclear reactor through the use of resonant self-screening of indicators by filters of the same material. The authors' modification, aimed at extending the possible energy range, consists of using the first resonances of neutron capture in W^{186}, Mn^{55}, and Na^{23}. The filter resonant self-screening factors needed to make use of the method are calculated for different thicknesses of the indicators themselves and of the filters surrounding them. Plots of these factors, obtained by a Monte Carlo computer calculation, are presented. The method was used to measure the distribution of neutrons with energies corresponding to the first resonances of In^{155}, Au^{197}, W^{186}, Mn^{55}, and Na^{23} inside a uranium block measuring 70 x 70 x 90 cm bombarding with neutrons in the Fermi spectrum. The results confirmed the possibility of

Card 1/2 UDC: 539.125.52

L 06997-67

ACC NR: AP6021530

using the proposed resonant indicators for reactor measurements. The authors thank V. I. Golubev, M. Yu. Orlov, and O. P. Uznadze for taking part in the work, and the crew of the BR-1 reactor and K. I. Nesterov for help with the measurements. Orig. art. has: 4 figures, 1 table, and 1 formula.

SUB CODE: 18/ SUBM DATE: 29Nov65/ ORIG REF: 010

Card 2/2 LC

MIKHAYLUS, L.

What the examination results tell. Prof.-tekh.obr. 11 no.4:

1. Inzhener-metodist uchebno-metodicheskogo kabineta pri Chelyabinskom oblastnom upravlenii trudovykh rezervov.
(Agricultural machinery--Study and teaching)

S/130/61/000/010/003/004
A006/A101

AUTHOR: Mikhaylus', N. G., Power Engineer of Shop no. 1

TITLE: Pipe normalization in a line

PERIODICAL: Metallurg, no. 10, 1961, 30.

TEXT. At the Yuzhnotrubnyy Pipe Plant a new and simple method was suggested for the normalization of pipes in a line. Previously the pipes were after reduction cooled on a cooling table, straightened, normalized in a furnace and straightened again. Now sheet iron screens are placed underneath the chains of the cooling table and over the table, and form a chamber where the pipes are normalized instead of being quickly cooled on an open table. After reduction the pipes are supplied to this table where their temperature is 800 - 1,000°. The linear motion speed of the cooling table chains is 0.04 - 0.07 m/sec, depending on the pipe dimensions. This speed and 5 m long screens assure normalization of pipes within 75 - 130 sec. during a continuous motion of the chains. The pipes are automatically placed on the chain. Tests show that the quality of pipes thus normalized is not below that of pipes which had been treated in a special normalization furnace. This new method will yield savings of 45 kg

Card 1/2

S/130/61/000/01[illegible]/003/004
A006/A101

Pipe normalization in a line

reference fuel and 8 kw-h electric power per one ton of pipes. Operational time will be reduced. There is 1 figure.

ASSOCIATION Yuzhnotrubnyy zavod (Yuzhnotrubnyy Pipe Plant)

Card 2/2

MIKHAYLUS', N.G.

Photoelectric relay without an electronic amplifier. Prom.energ. 16 no.10:28-30 O '61. (MIRA 14:10)
(Transducers) (Electric relays)

MIKHAYLUS', N.G., inzh.

Improvement of the reversing performance of electric motors.
Prom.energ. 17 no.5:9 My '62. (MIRA 15:5)
(Electric driving)

AUTHOR: Mikhaylust, N.G., Engineer

S/094/63/000/004/001/001
A004/A127

TITLE: Jet relay used in an automation circuit

PERIODICAL: Promyshlennaya energetika, no. 4, 1963, 12 - 13

TEXT: The author describes a jet relay which is used as tube-position sensor at the entry and exit of an automated tube straightener of a Model 140 tube rolling mill. This jet relay has been in operation since 1960 and works satisfactorily where other types of inspection devices failed to yield satisfactory results. The water jet is a resistor whose magnitude depends on the chemical composition of the water and the length of the jet, which might insignificantly vary in the course of the year without impairing the sensitivity of the jet relay. The author presents a description of the functioning of the jet relay and an amplifier block-diagram. There are 2 figures.

Card 1/1

L 2133-66 EWT(d)/EWT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l)/ETC(m) IJP(c)
ACCESSION NR: AP5022365 JD/WW UR/0115/65/000/007/0063/0064
556.531

AUTHORS: Morokh, A. M.; Mikhaylus', K. G.

TITLE: Quartz resistance thermometer 33 B

SOURCE: Izmeritel'naya tekhnika, no. 7, 1965, 63-64

TOPIC TAGS: measuring instrument, temperature measurement, quarts, tungsten, molybdenum, resistance thermometer

ABSTRACT: A resistance thermometer has been developed for direct measurement of temperatures in high-frequency current fields or in aggressive reagents. It consists of an evacuated quartz tube 1 sealed at both ends (see Fig. 1 of the Enclosure). A bead 2 (2—3 mm in diameter) is formed at one end and holds two molybdenum or tungsten wires 3 (0.5—0.7 mm apart). These wires run through the tube which, if necessary, may be protected by a cover. The instrument is connected to an indicating or a registering device 4. It was established experimentally that a rise of temperature from 500 to 1600C lowers the bead resistance by a factor of 5×10^6. The thermometer is accurate, stable, and

Card 1/5

L 2133-66
ACCESSION NR: AP5022365

sensitive; it may be used under various laboratory and industrial conditions. Due to production difficulties and material inconsistencies, each instrument must be graduated individually. Orig. art. has: 2 figures. [04]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 01 SUB CODE: TD

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4122

Card 2/3

L 2133-66
ACCESSION NR: AP5022365

ENCLOSURE: 01

Fig. 1. Quartz resistance thermometer

Card 3/3

KHA

AUTHORS Sokolov A.V., [illegible]

TITLE On the [illegible] Content [illegible]

([illegible])

PERIODICAL Zavodskaya Laboratoriya, 195 , Vol. 2 , Nr 7, [illegible]

ABSTRACT Two methods ar[e] [illegible] [investi]gated and compared in this [illegible] sium nitride method [sug]gested by [illegible] eva A.I., [illegible] and Re[illegible] S.K. [and] the titration method with Fi[scher's reagent] [illegible] the occasion of the t[est] Fischer's [illegible] onent were taken in a[cc]ordance with data [pro]vided by [illegible] tenel D. and Smith D. The [expe]riments carried [illegible] to the second -named method with Fischer's rea[ge]nt [illegible] sture content [illegible] 2,5 times [illegible] that [illegible] to the first-named [met]hod [illegible] the test [illegible] zene, to which a cert[ain] quantity of water [illegible] of the two methods showed that that carried out [with] Fi[sc]her's reagent was the correct on[e].
There are 3 tables.

ASSOCIATION Scientific Research Institute for Synthetic [Spirits and] Organic Products. (Nauchno-is[sle]dovatel'skiy institut [sinteticheskikh] spirtov i organicheskikh [produk]tov)

AVAILABLE Library of Congress

Card 1/1

75 13 3 22/27

AUTHORS: Sokolov, A. V., Mikhaylyan, N. K., Korotayeva G. P.

TITLE: A Method for the Quantitative Determination of Dimethylphenylcarbinol (Metod kolichestvennogo opredeleniya dimetil fenilkarbinola)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol 13, Nr 3, pp 368-369 (USSR)

ABSTRACT: The determination of tertiary alcohols by the usual methods of esterification with acetic-acid-anhydride, phthalic acid anhydride or acetyl chloride invariably furnishes results which are too low since tertiary alcohols often separate water under the conditions of esterification. Likewise the general method of determination by Mitchel and Smit (Ref 1) is not applicable in the case dealt with by the authors, as the dimethylphenylcarbinol was present in mixture with phenol and acetophenone and this compound under the acetylation and in the presence of boron trifluoride also reacts under the formation of water. Other known methods for the quantitative determination of dimethylphenylcarbinol are extremely cumbersome and for that reason hardly suitable for

Card 1/3

A Method for the Quantitative Determination of Dimethylphenylcarbinol

industrial application. In the article concerned a quantitative method of determination for dimethylphenylcarbinol was worked out by the authors which is reliable and easily accomplishable under conditions prevailing in industry. Two processes are used as basis: a) the dehydration of dimethylphenylcarbinol and b) the titration of separated water by means of the Karl Fischer reagent. The main attention was directed towards the discovery of conditions suitable for the dehydration of dimethylphenylcarbinol. Dehydration was carried out by means of various catalysts (copper-sulfate, boric-anhydride, sulfuric acid, sodium bisulfate) and in isopropylbenzene as solvents. It turned out that the separation of water in the presence of copper sulfate does not exceed 28 % and in the presence of boric anhydride and sulfuric acid not 26 %. The highest degree of dehydration (92 %) was achieved by the use of 2 drops of concentrated H_2SO_4, the reaction mixture being heated to 85°. With increased heat, a resinification of the sample set in. The separation of water from dimethylphenylcarbinol yields much better results in the presence of sodiumsulfate and a resinification does not occur. It is therefore possible to raise the tem-

Card 2/3

A Method for the Quantitative Determination of Dimethylphenylcarbinol

perature to the boiling point of isopropylbenzene. In order to prevent the evaporation of water the heat was increased only to the point of boiling (152°) and the sample was kept at this temperature for 10 minutes. It appeared that under these conditions and in the presence of 0.2 g sodium bisulfate dimethylphenylcarbinol was quantitatively dehydrated. The determination is not impeded by dimethylphenyl paracresol acetophenone and α-methylstyrene. The error limit of the method described is about 1 %, the determination takes at the utmost 25 minutes. There are 2 tables and 1 reference, 1 of which is Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov, Moskva
(Moscow Scientific Research Institute for Synthetic Alcohols and Organic Products)

Alcohols--Determination

Card 3/3

AIEKSANDROV, A.N.; MIKHAYLYAN, N.K.

Determination of the moisture of organic compounds by infrared spectroscopy. Khim.prom. no.5:313-320 My '62. (MIRA 15:7)
(Organic compounds--Spectra)
(Moisture)

ALEKSANDROV, A.[illegible]; MIKHAYLYAN, N.K.; SEDOVA, G.A.

Determination of small quantities of water in acetaldehyde by infrared spectroscopy. Khim.prom. no.9:570-572 Ag '62. (MIRA 15:9)

(Acetaldehyde) (Water—Spectra)

MIKHAYLYAN, N.K.; SOKOLOV, A.V.; SEDOV, G.A.

Determination of moisture in acetone. Zav. lab. 29 no.9:1058 '63.
(MIRA 17:1)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov.

MIKHAYLYANTS, O.A.

USSR/ Miscellaneous - Ceramics manufacture

Card 1/1 Pub. 123 - 7/16

Authors : Nagornyy, A. I.; Frolov, V. E.; Lebedev, M. A.; Khokhol'kova, L. A.; and Mikhaylyants, O. A.

Title : Manufacture of ceramic sewer pipes from Lengersk infusible clay

Periodical : Vest. AN Kaz. SSR 12, 63-67, Dec 1954

Abstract : The possibility of manufacturing high-quality ceramic sewer pipes from infusible Lengersk clays are discussed. The technological process employed in the manufacture of refractory tubes is described. Two USSR references (1941 and 1952). Tables.

Institution : .....

Submitted : M. I. Goryaev, Active Member of Acad. of Sc. Kaz-SSR

MIKHAYLYANTS, O. A.

4
8
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Processes in lime-silicate mixtures during hydrothermal treatment. A. T. Nazarov, B. P. Parimbetov, and O. A. Mikhaylyants. *Izvest. Akad. Nauk Kazakh. S.S.R., Ser. Gornogo Dela, Met. i Stroimaterial*, 1955, No. 5, 60-7(in Russian).—During the autoclave treatment of mixts. of burnt rock and carbide lime, there take place (a) the formation of calcium silicates hydrated to various degrees and close in compn. to minerals of type okenite and gyrolite and (b) the formation of calcium hydroaluminates. By means of thermographic, chem., and phys. methods of investigation it was established that finely ground feldspar, hornblende, and hematite (admixts. in silicate raw material) react actively under hydrothermal conditions with $Ca(OH)_2$ and facilitate the hardening of the autoclaved mixts.

B. Z. Kamich

MIKHAYLYANTS, O. A.

Drying of ceramic shapes made from saline clays. O. A. Mikhaylyants and N. T. Nagornyi. *Izvest. Akad. Nauk Kazakh. S.S.R., Ser. Gornogo Dela, Met. i Stroimaterial.* 1955, No. 5, 143-51 (in Russian).—The chief cause for the low quality of shapes made from saline clays is the uneven distribution of the salts during the drying. Deformation (cracks) are observed chiefly during the period of modification changes of Na_2SO_4, which occur at 31.8°. Heating of the mixts. to this temp. facilitates the normal course of drying and its intensification. Use of semidry pressing eliminates migration of salts to the surface of the shapes.

NAGORNYY, A.I.; MIKHAYLYANTS, O.A.

Effect of mirabilite on changes in the porosity of objects made of clay. Izv.AN Kazakh.SSR.Ser.gor.dela, met., stroi i stroimat. no.10:55-60 '56. (MIRA 10:1)

(Glauber's salt) (Pottery)

KOVALENKO, V. N.; MIKHAYLYANTS, O. A.; SALIDZHANOV, S. B.; SHEYKH-ZADE, R. M.

Mineral wool made of raw material from Tashkent District. Sbor. nauch. trud. NII po stroi. ASiA no.2:63-68 '61. (MIRA 16:1)

(Tashkent District—Mineral wool)

KOVALENKO, V.N.; MI[illegible]YANTS, O.[illegible]

Briquetting loess dolomite charges in the pr[illegible]
wool. Sbor. nauch. trud. NII po stroit. [illegible]
[illegible]

MIKHAYLYANTS, O.A.; MOROZOV, D.I.; POPOVICH, A.A.; SHEYKH-ZADE, R.M.

Diabases and spilites from northern Nuratau as raw materials for the production of mineral wool. Sbor. nauch. trud. NII po stroi. ASiA no.4:72-7? '63. (MIRA 17:8)

MIKHAYLYANTS, R. S.

[Advanced practice in using chemical means to control dodder in alfalfa] Peredovoi opyt primeneniia khimicheskogo sposoba bor'by s povilikoi na posevakh liuserny. Tashkent, Gos.izd-vo Uzbekskoi SSR, 1954. 25 p. (MIRA 10:12)
(Dodder) (Herbicides)

MIKHAYLYANTS, R. S., Cand of Agric Sci — (diss) "Use of herbacides to control dodders in the sowing of alfalfa under the existing conditions of the Uzbek SSR." Tashkent, 1957 19 pp, (Tashkent Agricultural Institute), 125 copies (KL, 29-57,92)

USSR / Weeds and Weed Control

Abs Jour: Ref Zhur-Biol., 1958, No 17, 77964

Author : Mikhaylyants, R. S.
Inst : Not given
Title : Explanations of the Conditions of Effectiveness of Contact Herbicides Against Dodders on Lucerne Crops.

Orig Pub: V ab.: Materialy Mezhresp. soveshchaniya po koordinatsii nauchno-issled. rabot po khlopkovodstvo, 1957, g. Tashkent, AN UzSSR, 1957, 193-197

Abstract: One of the conditions of effectiveness of lucerne crop cultivations against dodder is low mowing (5-8 cm). The stubble must be treated with

Card 1/3

N

USSR / Weeds and Weed Control

Abs Jour: Ref Zhur-Biol., 1958, No 17, 77964

Abstract: herbicides over 3-4 days after mowing. Dinitro-o-cresol was tried, and ammoniated and triethanol-amine salts of dinitrophenol (DNPA and TEADNP) sodium pentachlorphenolate (PCP), preparation No 125 and a garden carbolineum-concentrate of emulsion of anthrocine oil (CEAO) were tried. Spraying of DNPA in a 4% concentration gave high destruction of dodder in tests in 1955 (outlay of solution - 800 l/ha). Herbicide No 125 (4%) and PCP (3-4%), with a normal solution outlay of 800 l/ha, are very effective, and assure full destruction of dodder. Of these preparations, some preference for effectiveness can be given to PCP, but for influence on the yield of lucerne, the preferred is predominantly in favo. of prepara-tion No 125 (product of slate coking, designated

Card 2/3 11

N

USSR / Weeds and Weed Control

Abs Jour: Ref Zhur-Biol., 1958, No 17, 77964

Abstract: VIZR-REF). In tests in 1956, CEAC showed satisfactory results; however, it has little future, in view of the necessity of the use of large dosages - 180 kg/ha for oil.

Card 3/3

"Effectiveness of Contact Herbicides Against Dodder in Alfalfa Fields," by R. S. Mikhaylyants, Merited Agronomist Uzbek SSR, Zashchita Rasteniy ot Vreditely i Bolezney, Vol 2, No 3, May/Jun 57, pp 58-59

Experiments conducted by the author, V. E. Kreytsberg, P. P. Arkhangelskiy, Yu. B. Bezrukov, and V. A. Selikhovich, associates at the Uzbek Quarantine Laboratory, established that the phenol derivatives--sodium dinitroorthocresolate, ammonium and triethalammonium salts of dinitrophenol, sodium pentachlorophenolate, and Preparation No 125--are effective against dodder, a parasitic plant which infests alfalfa fields. Preparation No 125 was found to be the most effective of the compounds. The methods of application of Preparation No 125 is as follows: on the discovery that dodder infests an alfalfa field, the crop should be cut as soon as possible for hay and removed from the field; the stubble and weeds should then be treated with Preparation No 125. The chemical should not be applied before 25 June. The number of parasitic plants in the succeeding sowing will be considerably reduced. (U)

MIKHAYLYANTS, R.S.

Using herbicides to control dodder in alfalfa fields of the Uzbek S.S.R. Agrobiologiia no.1:117-124 Ja-F '58. (MIRA 11:2)
(Uzbekistan--Dodder)
(Alfalfa--Diseases and pests)
(Herbicides)

USSR/Cultivated Plants - Commercial. Oil-Bearing. Sugar-Bearing. M-5

Abs Jour : Ref Zhur - Biol., No 20, 1958, 91746

Author : Mikhaylyants, S.
Inst :
Title : Artificial Desiccation of Cotton as a Method of Accelerating Boll Opening.

Orig Pub : Khlopkovodstvo, 1957, No 8, 35-37.

Abstract : The effect of artificial desiccation of cotton on the acceleration of boll opening was studied at a number of rayons in Ferganskaya Oblast in 1956 on an area of 2732 hectares. The cotton plants were treated during the period of 5-20 Octover with a 3% solution of N_a arsenite. From the entire area 1842 hectares were treated from airplanes at the rate of 150-200 liters per hectare and 890 hectares were treated with tractor drawn sprayers at the rate of 500-600 liters per hectare. For the experiment, plots with tall, densely planted cotton were selected.

Card 1/2

MIKHAYLYANTS, S

CATEGORY : Cultivated Plants. Commercial. Sugar-Bearing.
ABS. JOUR. : RZhBiol., No. 1, 1959, No. 15724

AUTHOR : Mikhaylyants, S.
INST. : Fergana Motor Tractor Station
TITLE : Reserve Waterings in Kolkhozy of the Ferganskaya MTS Zone

ORIG. PUB. : Khlopkovodstvo, 1958, No.2, 24-25

ABSTRACT : The findings of experiments by a number of kolkhozy of the Ferganskaya MTS, Uzbek SSR in carrying out reserve presowing waterings of fields under cotton instead of supplementary nutrition waterings. For the purpose of getting unanimous full-value sprouts at optimal dates, such waterings are made in the autumn in the presence of upraised ploughland or in spring (in its absence) after spring plowing. In 1957 in the Ferganskiy rayon, the use

CARD: 1/2

Subject : USSR/Electricity AID P - 3541

Card 1/1 Pub. 29 - 5/27

Author : Mikhaylyants, Ye. Ye., Eng.

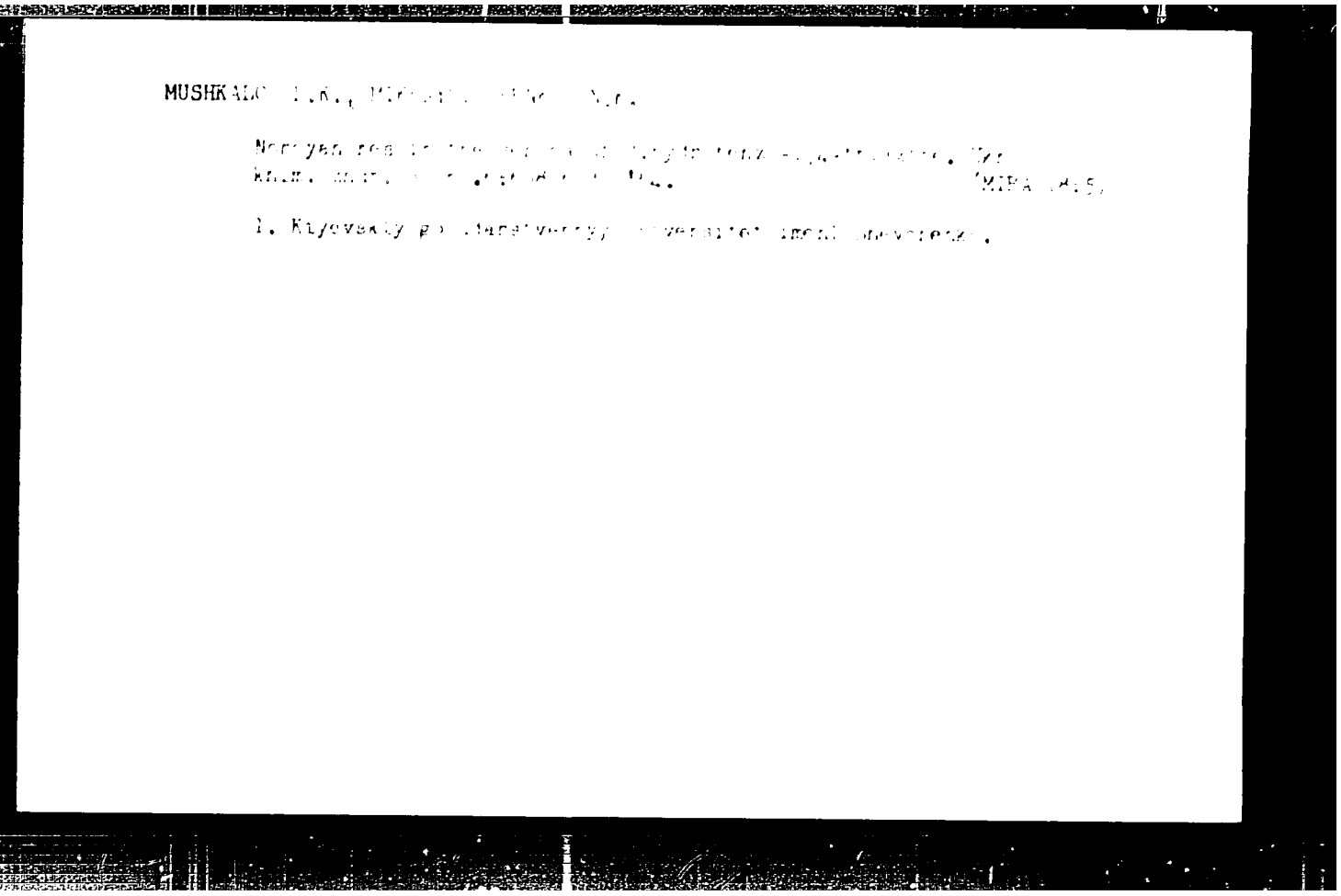
Title : Controller of steam supply on the turbine labyrinth packing

Periodical : Energetik, 11, 9-10, N 1955

Abstract : The author describes a steam-feeding device with a controller designed by I. P. Kuz'min and M. D. Yemel'yanov, foremen. The controller regulates steam supply to the turbine labyrinth packing. One drawing.

Institution : None

Submitted : No date



MUSHKALO I.K., [illegible]

[illegible]

1. Kiyevskiy [illegible]

L 34154-65 EED-2/EWP(k)/EWT(d)/EWP(h)/EWP(l)/EWP(v) Pf-4/Pe-4/Pk-4/Po-4/Pq-4
IJP(c) GG/BB/GS
ACCESSION NR: AT5003620 S/0000/64/000/000/0176/0187 53
8+1

AUTHOR: Lozinskiy, N. N.; Mikhaylychev, V. I.

TITLE: Statistical evaluation of some principal parameters of control-machine digital computers

SOURCE: AN SSSR. Institut elektromekhaniki. Avtomatizirovannyy elektroprivod (Automated electric drive). Leningrad, Izd-vo Nauka, 1964, 176-187

TOPIC TAGS: digital computer, control computer 16

ABSTRACT: A tentative statistical approach to the problem of selecting fundamental parameters of a control-type digital computer is described. The computer comprises: external and internal storages, an arithmetic unit, a control unit, analog-digital input converters, and digital-analog output converters. Storage capacities and time of operation are sought. Statistics are used for analyzing the factual material accumulated in the course of designing

Card 1/2

L 34154-65

ACCESSION NR: AT5003620

control computers and for processing this material by the Monte-Carlo method. The analysis is divided into 3 stages: (1) Evaluation of the program capacity for a specified count pattern; (2) Evaluation of the program length for each of N problems; (3) Estimation of the program length and time required to solve all N problems. The speed of operation is determined for these 3 types of problems: (a) continuous, (b) single, and (c) episodic (incidental). Orig. art. has: 4 figures, 9 formulas, and 2 tables.

ASSOCIATION: none

SUBMITTED: 08Jul64 ENCL: 00 SUB CODE: DP

NO REF SOV: 002 OTHER: 002

Card 2/2

L 34151-65 EED-2/EWP(e)/EWP(k)/EWT(d)/EWP(h)/T/EWA(d)/EWP(l)/EWP(v) Pf-4/Pg-4/Pk-4/Po-4/Pq-4 IJP(c) GG/BB/GS

ACCESSION NR: AT5003622 S/0000/64/000/000/0202/0208 41

AUTHOR: Mikhaylychev, V. I. B+1

TITLE: Shaft-angle into digital code conversion 16

SOURCE: AN SSSR. Institut elektromekhaniki. Avtomatizirovannyy elektroprivod (Automated electric drive). Leningrad, Izd-vo Nauka, 1964, 202-208

TOPIC TAGS: shaft digitalizer, angle to digit converter 14

ABSTRACT: The drawbacks of conventional harmonic-voltage phase-shift methods are discussed. In the new method, the phase shifter is supplied with pulses from a computer modulated according to the sine-cosine law (see Enclosure 1). A sequence of sine-modulated pulses appears at the output winding of the phase shifter. The phase difference between the envelopes of two sine waves is proportional to the angle of rotation. The new method is claimed to have these advantages: (1) Small power needed for supplying the phase shifters;

Card 1/3

L 34151-65

ACCESSION NR: AT5003622 0

(2) Simple circuits for shaping supply voltages are possible in some cases;
(3) When the digital computer is designed with rigid-synchronization elements, no special means for synchronizing the balance detector with the machine elements is required because the balance-detector pulses come in synchronism with the machine pulses. A 2-3-transistor pulsed amplifier may function as a balance detector. Orig. art. has: 4 figures and 5 formulas.

ASSOCIATION: none

SUBMITTED: 08Jul64 ENCL: 01 SUB CODE: DP

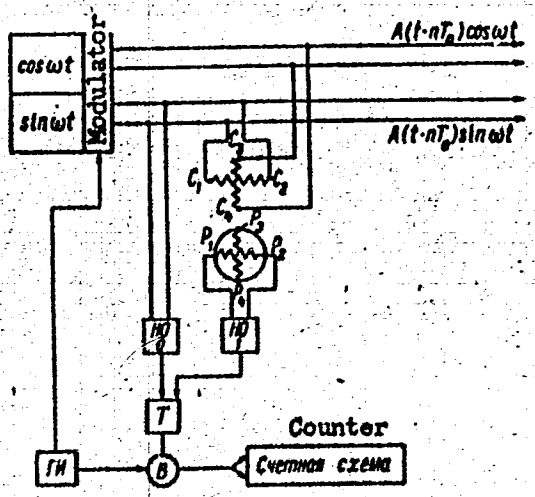
NO REF SOV: 000 OTHER: 000

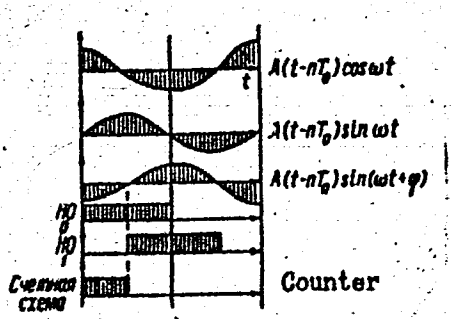
Card 2/3

L 34151-65

ACCESSION NR: AT5003622

ENCLOSURE: 1





Conversion of the shaft angle into a digital code; the phase shifters are pulse-supplied. Time diagram of operation.

Card 3/3

POCHINOK, V.Ya.; MIKHAYLYUCHENKO, M.K.

Triazeno alcohols from ω-azidoacetophenone. Ukr.khim.zhur. 21 no.5: 625-627 '55. (MLRA 9:3)

1. Kiyevskiy gosudarstvennyy universitet imeni T.G. Shevchenko, Kafedra organicheskoy khimii.
(Alcohols) (Acetophenone)

MUSHKALO, L.K.; MIKHAYLYUCHENKO, N.K.

Cyanine dyes from seven-link heterocyclic systems. Part 4: Dyes in the naphthothiazepine series. Ukr.khim.zhur. 30 no.2: 202-206 '64. (MIRA 17:4)

1. Kiyevskiy gosudarstvennyy universitet imeni T.G.Shevchenko.

ACC NR: AP6028901 SOURCE CODE: UR/0079/66/036/008/1442/1444

AUTHOR: Shokol, V. A.; Mikhaylyuchenko, N. K.; Derkach, G. I.

ORG: Institute of Organic Chemistry, Academy of Sciences, UkrSSR (Institut organicheskoy khimii Akademii nauk UkrSSR)

TITLE: Reactions of compounds of trivalent phosphorus with N-chloroamides. II. Reactions of phosphites with N-chloro-N-alkylurethanes

SOURCE: Zhurnal obshchey khimii, v. 36, no. 8, 1966, 1442-1444

TOPIC TAGS: insecticide, alkylphosphonocarbamic acid ester, organic phosphorus compound

ABSTRACT: N-chloro-N-alkylurethanes react with trialkyl phosphites to form the corresponding esters:

$$ROCON(R')Cl + (R''O)_3P \rightarrow [ROCON(R')P(OR'')_3]^+Cl^- \rightarrow$$

$$\rightarrow ROCON(R')PO(OR'')_2 + R''Cl.$$

Without solvent the reaction is very vigorous, therefore, it is conducted in benzene solution with boiling. The diesters of N-alkylphosphonocarbamic acids are effective insecticides and at the same time they are harmless to humans and animals. The initial N-chloro-N-alkylurethanes were obtained by chlorination of N-alkylurethanes or by methylation

Card 1/3 UDC: 547.495.1

ACC NR: AP6028901

of N-chlorourethanes with dimethyl sulfate:

$$\left.\begin{matrix} ROCONHR' \xrightarrow{Cl_2} \\ ROCONHCl \xrightarrow{(CH_3O)_2SO_2} \end{matrix}\right\} \rightarrow ROCON(R')Cl.$$

Composition and properties of the diesters are given in the table.
Orig. art. has: 1 table. [W.A. 50]

Card 2/3

ACC NR: AP6028901

Table 1. Diesters of N-alkylphosphonocarbamic acids ROCON(R')PO(OR")$_2$

R	R'	R"	Yield (in %)	bp (p in mm)	n_D^{20}	d_4^{20}	MR$_D$ Found	MR$_D$ Calc'd	Found % P	Formula	Calc'd % P
CH_3	CH_3	CH_3	66	83–84° (1.5)	1.2774	1.4360	40.40	40.74	16.02	$C_5H_{12}NO_5P$	15.71
CH_3	CH_3	C_2H_5	64	87–88 (1.5)	1.1960	1.4310	50.08	49.85	13.95	$C_7H_{16}NO_5P$	13.76
CH_3	CH_3	iso-C_3H_7	62	76–78 (0.4)	1.1060	1.4299	59.17	59.18	12.81	$C_9H_{20}NO_5P$	12.24
CH_3	C_2H_5	C_2H_5	55	84–85 (0.4)	1.1348	1.4333	54.81	54.57	13.19	$C_8H_{18}NO_5P$	12.95
CH_3	C_2H_5	iso-C_3H_7	50	90–91 (0.3)	1.0730	1.4285	64.12	63.80	11.83	$C_{10}H_{22}NO_5P$	11.59
C_2H_5	CH_3	CH_3	50	71–72 (0.4)	1.2160	1.4343	45.27	45.33	14.33	$C_6H_{14}NO_5P$	14.04
C_2H_5	CH_3	C_2H_5	63	83–84 (0.5)	1.1310	1.4301	54.63	54.57	12.23	$C_8H_{18}NO_5P$	12.95
C_2H_5	CH_3	iso-C_3H_7	65	91–92 (0.7)	1.0770	1.4277	63.81	63.80	11.51	$C_{10}H_{22}NO_5P$	11.59
iso-C_3H_7	CH_3	CH_3	57	114–115 (3)	1.1657	1.4309	49.09	49.85	13.68	$C_7H_{16}NO_5P$	13.76
iso-C_3H_7	CH_3	C_2H_5	56	98–99 (1.5)	1.1041	1.4292	59.14	59.18	12.42	$C_9H_{20}NO_5P$	12.24
iso-C_3H_7	CH_3	iso-C_3H_7	90	108–108 (1.5)	1.0520	1.4270	68.66	68.42	11.04	$C_{11}H_{24}NO_5P$	11.01

SUB CODE: 07,06/SUBM DATE: 10Jul65/ ORIG REF: 008/ OTH REF: 004

Card 3/3

ACC NR: AP6028901 SOURCE CODE: UR/0079/66/036/008/1442/1444

AUTHOR: Shokol, V. A.; Mikhaylyuchenko, N. K.; Derkach, G. I.

ORG: Institute of Organic Chemistry, Academy of Sciences, UkrSSR (Institut organicheskoy khimii Akademii nauk UkrSSR)

TITLE: Reactions of compounds of trivalent phosphorus with N-chloroamides. II. Reactions of phosphites with N-chloro-N-alkylurethanes

SOURCE: Zhurnal obshchey khimii, v. 36, no. 8, 1966, 1442-1444

TOPIC TAGS: insecticide, alkylphosphonocarbamic acid ester, organic phosphorus compound

ABSTRACT: N-chloro-N-alkylurethanes react with trialkyl phosphites to form the corresponding esters:

$$ROCON(R')Cl + (R''O)_3P \rightarrow [ROCON(R')P(OR'')_3]^+Cl^- \rightarrow$$

$$\rightarrow ROCON(R')PO(OR'')_2 + R''Cl.$$

Without solvent the reaction is very vigorous, therefore, it is conducted in benzene solution with boiling. The diesters of N-alkylphosphonocarbamic acids are effective insecticides and at the same time they are harmless to humans and animals. The initial N-chloro-N-alkylurethans were obtained by chlorination of N-alkylurethanes or by methylation

Card 1/3 UDC: 547.495.1

ACC NR: AP6028901

of N-chlorourethanes with dimethyl sulfate:

$$\left.\begin{matrix} ROCONHR' \\ ROCONHCl \end{matrix}\right\} \xrightarrow[(CH_3O)_2SO_2]{Cl_2} ROCON(R')Cl.$$

Composition and properties of the diesters are given in the table. Orig. art. has: 1 table. [W.A. 50]

Card 2/3

ACC NR: AP6028901

Table 1. Diesters of N-alkylphosphonocarbamic acids ROCON(R')PO(OR")$_2$

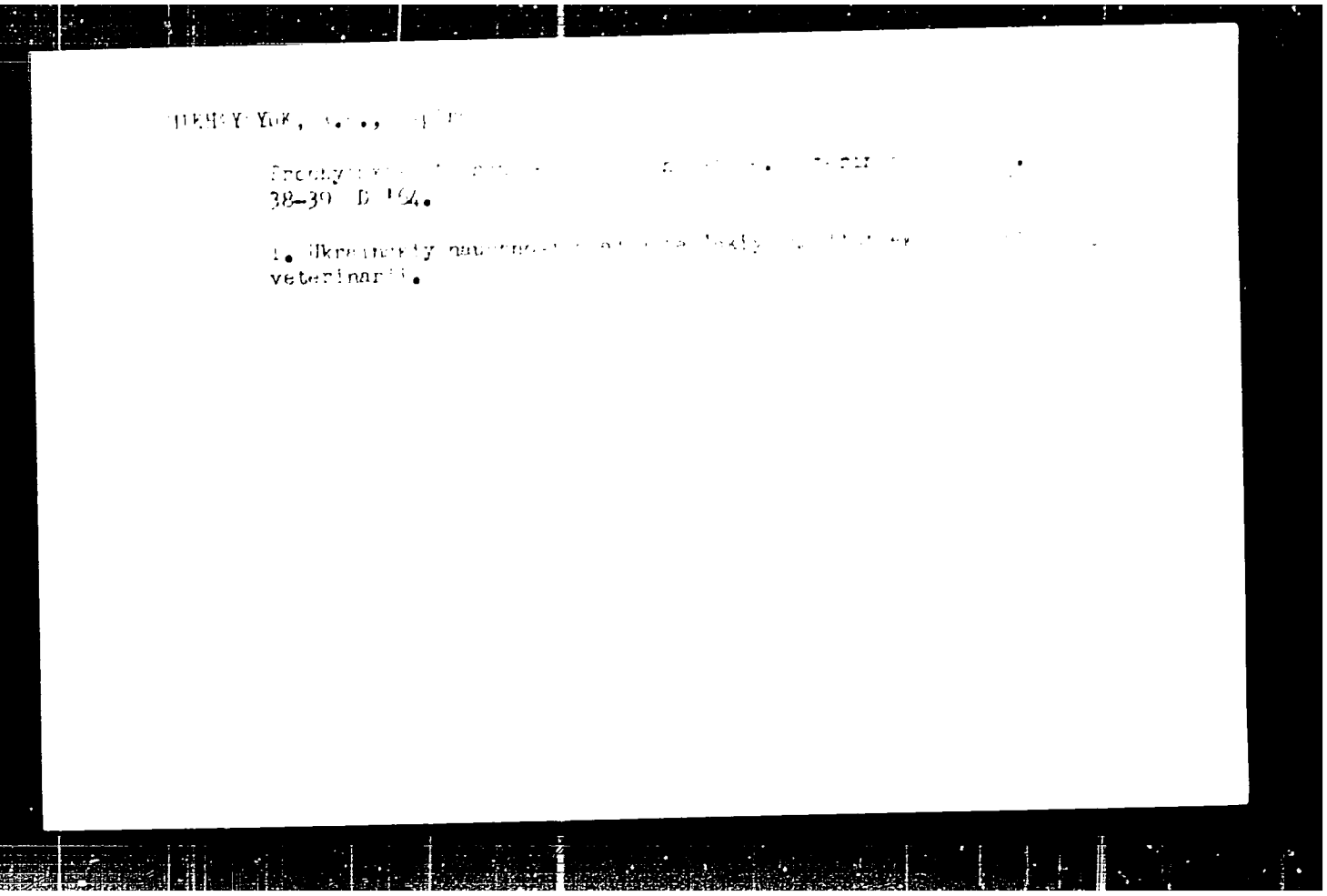
R	R'	R"	Yield (in %)	bp (p in mm)	n_D^{20}	n_D^{25}	MR$_D$ Found	MR$_D$ Calc'd	Found % P	Formula	Calc'd % P
CH_3	CH_3	CH_3	66	83—84° (1.5)	1.2774	1.4366	40.40	40.71	16.02	$C_5H_{12}NO_4P$	15.71
CH_3	CH_3	C_2H_5	64	87—88 (1.5)	1.1660	1.4318	50.09	49.83	13.85	$C_6H_{14}NO_4P$	13.76
CH_3	CH_3	iso-C_3H_7	62	75—76 (0.4)	1.1050	1.4299	59.17	58.18	12.31	$C_7H_{16}NO_4P$	12.24
CH_3	C_2H_5	C_2H_5	55	84—85 (0.4)	1.1348	1.4333	54.81	54.57	13.19	$C_7H_{16}NO_4P$	12.85
CH_3	C_2H_5	iso-C_3H_7	50	90—91 (0.3)	1.0730	1.4285	64.12	63.80	11.63	$C_8H_{18}NO_4P$	11.59
C_2H_5	CH_3	CH_3	50	71—72 (0.4)	1.2160	1.4343	45.27	45.33	14.33	$C_6H_{14}NO_4P$	14.01
C_2H_5	CH_3	C_2H_5	63	83—84 (0.5)	1.1310	1.4301	54.83	54.57	13.23	$C_7H_{16}NO_4P$	12.85
C_2H_5	CH_3	iso-C_3H_7	65	91—92 (0.7)	1.0770	1.4277	63.81	63.80	11.51	$C_8H_{18}NO_4P$	11.56
iso-C_3H_7	CH_3	CH_3	57	114—115 (3)	1.1657	1.4308	49.89	49.95	13.66	$C_7H_{16}NO_4P$	12.76
iso-C_3H_7	CH_3	C_2H_5	58	98—99 (1.5)	1.1041	1.4292	59.14	58.18	12.42	$C_8H_{18}NO_4P$	12.24
iso-C_3H_7	CH_3	iso-C_3H_7	60	108—109 (1.5)	1.0520	1.4279	68.66	68.42	11.04	$C_{11}H_{24}NO_4P$	11.01

SUB CODE: 07,06/SUBM DATE: 10Jul65/ ORIG REF: 008/ OTH REF: 004

Card 3/3

MIKHAYLYUK, A.I. (g. Kremenets Ternopol'skoy oblasti).

Gas installations for chemical laboratories in secondary schools. Khim.v shkole 9 no.5:45-51 S-O '54. (MLRA 7:9)
(Gas appliances) (Chemical laboratories)



MIKHAYLYUK, A.S., inzhener; FUKS, G.I., kand.khim.nauk.

Wear of materials used for making supports and axles of precision instruments. Priborostroenie no.9:18-21 S '57. (MIRA 10:10)
(Mechanical wear)

FUKS, G.I.; MIKHAYLYUK, A.S.

Measurements of boundary friction and adhesion, designed to determine the interaction of highly disperse particles. Part 3: Effect of neutral electrolytes on the friction of quarts, ruby and agate at high contact pressures. Koll. zhur. 22 no. 6:720-729 N-D '60. (MIRA 13:12)

1. Nauchno-issledovatel'skiy institut chasovoy promyshlennosti, Moskva.
(Quarts) (Agates) (Rubies)

KHANDEL'SMAN, Yu.M.; DOKUCHALOVA, V.V.; MIKHAYLYUK, A.S.

Measuring minor moments of starting. Izm.tekh. no.2:17-19 F '62. (MIRA 15:2)
(Measuring instruments)

DOKUCHALOVA, V.V.; LONDER, M.I.; MIKHAYLYUK, A.S.

Measurement of minor friction moments. Izm.tekh. no.4:55-58 Ap '62. (MIRA 15:4)

(Friction--Measurement)

KOLESNIKOV, V.A.; MIKHAYLYUK, A.T.

New method of manufacturing labyrinth packings for type TV-80-1,6 gas pumps. Sakh.prom. 37 no.2:53(133)-55(135) F '63. (MIRA 16:5)

1. Ust'-Labinskiy sakharnyy savod.
(Packing (Mechanical engineering)) (Pumping machinery)

MIKHAYLYUK, D.R. [Mykhailiuk, D.R.], inzh.

First steps of a specialized shop. Mekh. sil'. hosp. 14 no.11: 18-19 N'63. (MIRA 17:2)

1. Zaveduyushchiy spetsializirovannym tsekhom remontnoy masterskoy Genicheskogo rayonnogo ob"yedineniya "Sil'gosptekhnika" Khersonskoy oblasti.

USSR/Microbiology - Antibiosis and Symbiosis F-2
Antiobiotics.

Abs Jour: Ref Zhur - Biol., No 18, 1958, 81438

Author : Shugaylo, V.T., Mikhaylyuk, I.A.

Inst : Dnepropetrovsk Medical Inst.

Title : A Study of Actinomycete-Antagonists Isolated fro~ Soils of the Korovograd Region.

Orig Pub: Sb. nauchn. rabot. Dnepropetr. med. in-ta, 1956, 1, 95

Abstract: No abstract

Card 1/1

MIKHAYLYUK, I.H.

Harvesting by stages in Siberia. Nauka i pered.op.v sel'khoz. 7 no.6:25-26 Je '57. (MLRA 10:7)

1. Glavnyy agronom Kartashevskoy Mashinno-traktornoy stantsii Omskoy oblasti.
(Siberia--Grain--Harvesting)

USSR/Soil Science - Tillage. Amelioration. Erosion. J

Abs Jour : Ref Zhur Biol., No 1, 1959, 1409

Author : Mikhaylyuk, I.N.
Inst : -
Title : In Defense of Mal'tsev's Agricultural Techniques

Orig Pub : S. Kh. Sibiri, 1958, No 1, 14-18

Abstract : No abstract.

Card 1/1

24(2), 24(6), 18(6) SOV/126-7-2-26/39

AUTHORS: Kushta, G. P., Mikhaylyuk, I. F. and Korolyuk, G. F.

TITLE: Influence of Alloy Element Additions on the Interatomic Bond Forces of the Aluminium Lattice (Vliyaniye legiruyushchikh primesey na sily mezhatomnoy svyazi v reshetke alyuminiya) 1. Influence of Copper (1. Vliyaniye medi)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1959, Vol 7, Nr 2, pp 299-301 (USSR)

ABSTRACT: The study of the mechanism by which the characteristic temperature of solid solutions changes as a function of their composition, is one of the most important means for the determination of the nature of reactions between atoms of solid solutions. In a paper by Kushta (Ref 7), one of the authors has shown that the great strength of the duralumin type of alloys is not associated with formation of stronger bond forces between the atoms in the lattice of these alloys. Duralumin, however, contains a number of alloy elements (Cu, Mg, Si, Mn and others), each of which may exert a different influence, as the nature and extent to which bond forces change in solid solutions depend on the properties of each alloy element

Card 1/6

Influence of Alloy Element Additions on the Interatomic Bond Forces of the Aluminium Lattice 1. Influence of Copper

and its concentration in the solid solution (see Refs 3,5 and 9). It appears appropriate that the influence of each of the alloy constituents on the bond forces in the solid solution should be studied. Technically pure aluminium of specification AI and electrolytic copper were used as materials for making alloys. Specimens were made in porcelain crucibles by thermodiffusion of copper in molten aluminium at 800°C. Melting was carried out under a layer of flux. The characteristic temperature of the specimens was determined by the change of the heat factor of the X-ray interference line intensity. The specimens for X-ray exposure were made from powder produced by filing, which was annealed for 10 hours in vacuum at 500°C, and had a cylindrical shape*, the diameter being 0.8 mm (* The practically instantaneously cooled powder specimens were X-rayed at once after cooling. This permits the assumption that the copper concentration in the solid solution was practically identical with the one given.) X-raying was carried out in an open camera of the type RKD in the rays of a copper

anticathode at two temperatures - room temperature and liquid air temperature. In the last case, the specimen was sprayed with a stream of liquid air by means of a special siphon device (Ref 1). In order to obtain the line (333) for aluminium in X-ray pictures, a special (non-standard) collimator was used. X-ray photographs, taken at room temperature and at a low temperature, were developed under identical conditions and were then photometered in a visual microphotometer of type MF-2. For the determination of the characteristic temperature from the X-ray results a method was used which had been worked out by Il'ina et al. and Kurdyumov et al. (Refs 10 and 3 respectively). The relative intensities of the lines (111), (222), (422) and (333) were experimentally measured. The results of the measurements were neutralised along two directions of the X-ray picture for 2-5 X-ray photographs. The intensity of the lines was calculated as an area, bounded by the photometric curve and the base line. The intensity of the line (333) was calculated as the sum of the areas of two

Influence of Alloy Element Additions on the Interatomic Bond Forces of the Aluminium Lattice 1. Influence of Copper

lines of the $K\alpha_{1,2}$ doublet. In Fig 1 the results of the measurements are shown in the form of a logarithmic dependence of the intensity ratio

$$\frac{(\dot{I}_{h_2k_2\ell_2}/\dot{I}_{h_1k_1\ell_1})_{20^\circ}}{(\dot{I}_{h_2k_2\ell_2}/\dot{I}_{h_1k_1\ell_1})_{-185^\circ}} = \frac{\alpha_1}{\alpha_2}$$

on the difference of the sums of the index squares of corresponding pairs of lines for pure aluminium and its alloys with 2, 3 and 4 wt.% copper. From the figure it can be seen that the change of the heat intensity factor on introducing copper into the solid solution changes in the direction of decrease of the mean square of displacement of the atoms during oscillations, and of increase in the temperature of the solid solution, i.e. in the direction of increase of the bond forces of

Influence of Alloy Element Additions on the Interatomic Bond Forces of the Aluminium Lattice 1. Influence of Copper

the lattice. From the tangent of inclination of the straight line in Fig 1, using the formula

$$\ln \frac{\alpha_1}{\alpha_2} = A\varphi(\theta)\left(\sum h_2^2 - \sum h_1^2\right),$$

where $A = \frac{3h^2}{a^2 mk\theta}$, $\varphi(\theta) = \left[\frac{\Phi(\theta|T_1)}{\theta|T_1} - \frac{\Phi(\theta|T_2)}{\theta|T_2}\right]$

Φ - Debye's function, the values of Δ^{-2} and of the characteristic temperature θ were determined. The calculated values of θ and υ_a^2, which are characteristic of the strength of the interatomic bond of the solid solution lattice, are shown in the Table. The accuracy with which the characteristic temperature can be determined is within $\pm$ 8 to 10^0. The observed increase in bond force with increase in copper content in the solid solution coincides with a decrease in the lattice parameter of aluminium on introducing copper. As the

Card 5/6